CLAIMS

It is claimed that:

1.   A cursor control apparatus including:

a first pedal to control the movement of a cursor along an x-axis; and

a second pedal to control the movement of the cursor along a y-axis.

2.   The apparatus of Claim 1 further comprising a first base to support and provide pivoting motion of the first pedal, and a second base to support and provide pivoting motion of the second pedal.

3.   The apparatus of Claim 1, wherein the first pedal and the second pedal are configured for an angular motion to allow for both negative and positive velocities.

4.   The apparatus of Claim 3 further comprising a first motion detector for detecting the degree of angular motion of the first pedal and a second motion detector for detecting the degree of angular motion of the second pedal.

5.   The apparatus of Claim 4, wherein the degree of angular motion detected by the first motion detector and the second motion detector are combined and translated into a velocity at which the cursor is to be moved.

6.   The apparatus of Claim 1 further comprising a keyboard including buttons for the cursor control apparatus to further reduce travel time.

7.   A foot-operated input device comprising:

a first pedal to determine a velocity of motion of a cursor along an x-axis; and

a second pedal to determine a velocity of motion of the cursor along a y-axis,

wherein the velocities of motion of the cursor along the x-axis and y-axis are combined to generate a r vector.

8.   The device of Claim 7 further comprising a first base to support and provide seesaw motion of the first pedal, and a second base to support and provide seesaw motion of the second pedal.

9.   The device of Claim 7, wherein each of the first and second pedals has a neutral position indicative of a zero velocity, a first position indicative of a positive velocity and a second position indicative of a negative velocity.

10.   The device of Claim 7, wherein the r vector represents the direction of the cursor and a velocity of the cursor is to move on a screen.

11.   The device of Claim 10 further comprising a first motion detector to detect an angular displacement of the first pedal and a second motion detector to detect an angular displacement of the second pedal, wherein the angular displacements of the first and second pedals are to be translated into a direction of movement of the cursor on the screen.

12.   The device of Claim 11, wherein the first motion detector is to determine a velocity of motion of the first pedal and the second motion detector is to determine a velocity of motion of the second pedal, wherein the velocities of motion of the first and second pedals are translated into a velocity of motion of the cursor on the screen.

13.   The device of Claim 7 further comprising a keyboard including buttons for said foot-operated input device to further reduce travel time.

14.   A method for controlling a cursor comprising:

determining an angular motion of a first pedal, wherein the first pedal controls movement of a cursor along an x-axis;

determining an angular motion of a second pedal, wherein the second pedal controls movement of the cursor along a y-axis;

combining the angular motion of the first and second pedals; and

translating the combined angular motion of the first and second pedals into direction and velocity of motion of the cursor on a screen.

15.   The method of Claim 14, wherein each of the first and second pedals has a neutral position indicative of a zero velocity, a forward position indicative of a positive velocity and a backward position indicative of a negative velocity.

16.   The method of Claim 14, wherein determining the angular motion of the first pedal further, a speed and angular displacement of the first pedal is determined.

17.   The method of Claim 14, wherein determining the angular motion of a second pedal, a speed and angular displacement of the second pedal is determined.